Coccidioidomycosis in a Dog

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lation the kidney was pulled through the incision. The attachments and vessels holding the kidney were ligated and severed and the kidney was removed from the abdominal cavity. At this time a transfusion of 500 cc. of citrated whole blood was started into the left cephalic vein.

The peritoneum and muscle were closed with sutures of #1 plain catgut using a continuous stitch, tied every 1½ to 2 in. The abdominal fascia was sutured with a continuous stitch using #1 plain catgut. Interrupted nylon sutures were placed in the skin. A strip of gauze was placed over the wound and secured with flexoseal.

In the next three hours following the operation the patient received 500 cc. of Ringers solution and 500 cc. of dextrose subcutaneously. The common combination of 400,000 units of penicillin and .5 gm. of dihydrostreptomycin was injected intramuscularly. At the end of this time the temperature was 97.5°F., respirations were regular but jerky, and the mucous membranes were regaining their color. The same dose of antibiotic was repeated that night.

The following morning the patient was standing up in her cage and appeared very alert. A combination of 200,000 units of penicillin and .25 gm. dihydrostreptomycin was administered intramuscularly at this time. The same dosage was repeated at 12 hour intervals for two days. No rise in temperature was noted at any time during convalescence.

On December 17, every other skin suture was taken out and the following day all remaining skin sutures were removed.

The patient was fed I/D and K/D rations on alternate days until December 30, at which time it was placed on a regular diet. Recovery was rapid and uneventful and the dog was sent home Jan. 3, 1953.

The affected kidney, which weighed over 7 lbs., was found to be full of blood, with no active kidney tissue remaining.

R. John Buckman, '53

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Coccidiodomycosis in a Dog. A 10-month-old male Scotch Terrier was admitted to Stange Memorial Clinic on Nov. 12, 1952. The history given revealed that in Arizona, about five weeks previously, the dog's appetite had failed and a cough was evidenced. The patient was taken to an Arizona veterinary hospital for examination and was retained there for one week. A diagnosis of "Desert Fever" with a swelling of a lymph node near the heart was made. Medication in Arizona consisted of aureomycin, terramycin and chloromycetin in unknown dosages. The dog was brought back to Iowa three weeks prior to admittance to Stange Memorial Clinic, and upon arrival here, the general condition was noted as poor. A temperature of 103.4°F., listlessness, poor appetite, weakness, constipation and a serous discharge from the eyes were recorded.

On November 13, the patient was very depressed and weak; there was a fever of 104.3°F., the pulse was 132, and the respiratory rate was 76. A large amount of encrusted exudate was found around the eyes, this was removed with 2 percent boric acid solution. The bowel function and appetite were poor, but a small amount of horse meat in which 30 cc. of mineral oil was mixed was eaten readily. Upon auscultation, increased vesicular sounds and moist rales were heard on the right side. Therapy at this time consisted of 400,000 units of penicillin and 500 mg. of streptomycin intramuscularly, one-half this amount was given 12 hours later. Vomitus was present in the kennel at this later time.

A laboratory examination of the blood revealed the following:

<table>
<thead>
<tr>
<th>White blood cells</th>
<th>Patient</th>
<th>Normal</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sedimentation rate</td>
<td>6mm./hour</td>
<td>1-10mm./hour</td>
<td></td>
</tr>
<tr>
<td>Neutrophils</td>
<td>28,680</td>
<td>11,800</td>
<td></td>
</tr>
<tr>
<td>Neutrophils</td>
<td>87%</td>
<td>64%</td>
<td></td>
</tr>
<tr>
<td>Stabs</td>
<td>55%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Segments</td>
<td>32%</td>
<td>58%</td>
<td></td>
</tr>
<tr>
<td>Monocytes</td>
<td>1.4%</td>
<td>4.5%</td>
<td></td>
</tr>
<tr>
<td>Lymphocytes</td>
<td>11.5%</td>
<td>25%</td>
<td></td>
</tr>
<tr>
<td>Eosinophils</td>
<td>00.0</td>
<td>5%</td>
<td></td>
</tr>
</tbody>
</table>
On November 14, no noticeable improvement was noted; 200,000 units of penicillin and 259 mg. of streptomycin were given intramuscularly. Horse meat with mineral oil was again fed. The tonsils were swollen and a serous exudate was still present in the eyes. The temperature was 104°F., the pulse, 124 and the respiratory rate, 68. Seventy milligrams of terramycin was given intravenously and 200 cc. of a 5 percent dextrose-vitamin B complex solution injected subcutaneously.

On November 15 and 16, the patient appeared more alert. Seventy milligrams of terramycin and 200 cc. of dextrose with vitamin B complex were given each day. The fever continued at 104°F. The following day, the terramycin therapy was discontinued, but the 5 percent dextrose with vitamin B complex solution was continued for the next five days. During this time, the temperature varied between 103.6° and 104.4°F. The general condition was not improved. Exudate from the eyes was still quite profuse; yet it appeared to be improving. Rales in the lung persisted. During this five day period, horse meat was eaten enthusiastically.

On November 21, the temperature reached its highest level, 104.4°F., and the pulse rate increased to 136 beats per minute. The next day permission was obtained from the owner to perform euthanasia. To accomplish this, nine grains of pentobarbital sodium was given intravenously.

Post mortem findings showed that the left lung was entirely consolidated and enlarged. It had a brownish yellow color and the cut surface appeared granular. A white tenacious exudate filled the air passages. The right lung was somewhat enlarged, pink and approximately 75 percent functional. It contained many yellow foci up to 6 mm. in diameter; these were surrounded by a hyperemic, pneumonic zone 2-3 mm. wide. All the bronchial lymph nodes were fused into a solid, white tough granular mass about 6x3x3 cm. The tonsils were white, opaque, hyperplastic and slightly enlarged; there were splenic follicular enlargements up to 1 mm. The liver contained white foci 1 mm. in size and the parenchyma was congested. The kidneys showed acute nephritis, edema, cloudy swelling and a widened cortex with a hyperemic intermediate zone. There was a subacute catarhal gastroenteritis.

Bacteriological cultures obtained from the lungs and bronchial lymph nodes produced colonies of *Escherichia coli*; but it was assumed to be a contaminant. A positive diagnosis of coccidioidal granuloma (coccidioidomycosis) caused by the fungus *Coccidioides immitus* was made from tissue sections of the lung, lymph nodes, liver and kidney. The lesions were typical but few fungi were found in the sections.

This is the third time the disease has been diagnosed at this clinic. It is sometimes called “San Joaquin Valley Fever” or “California disease.” It is thought that the dog may have become infected while in Arizona.

Barrie Watson, ’54

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**Removal of Multiple Tumors of the Mammary Glands.** On Nov. 6, 1952, a ten-year-old female Cocker Spaniel was admitted to the Stange Memorial Clinic for removal of multiple tumors of the mammary glands. The only history obtained was of a previous oophorohysterectomy with no indication of how long the tumors had been present.

The patient was given a preanesthetic dosage of 1 gr. of morphine sulfate and 1/100 gr. of atropine sulfate subcutaneously one-half hour before the operation. The patient was restrained on the operating table in dorsal recumbency and the abdominal area clipped and prepared for surgery. Ether anesthesia was induced very cautiously because of the large preanesthetic morphine dosage and the advanced age of the animal. Tumors varying in size from a small pea to a marble were removed surgically from the third and fourth mammary glands of the right side. Due to a nearly complete involvement of the fourth and fifth mammary...